



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,025	03/15/2001	Cedric Lapaille	Q63534	4899

7590 03/08/2004  
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC  
Suite 800  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037-3213

EXAMINER

ELAHEE, MD S

ART UNIT PAPER NUMBER

2645

DATE MAILED: 03/08/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/808,025

Applicant(s)

LAPAILLE ET AL.

Examiner

Md S Elahee

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7, 10-13 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Lyles et al. (U.S. Patent No. 5,917,822).

Regarding claim 1, Lyles teaches a telecommunication system in which a plurality of terminal equipment units 210 (i.e., terminals) communicate with a head-end controller (i.e., connection station) and a bandwidth allocation unit (i.e., management unit) determines the allocation of resources for requests (i.e., calls) from each terminal equipment unit to the head-end controller, at least some of the terminal equipment units 210 include a plurality of channels (i.e., connections), the requests are effected by means of cells or packets, the allocation of resources is determined cell by cell or packet by packet in each channel, the bandwidth allocation unit includes means for allocating communication resources to each terminal equipment unit 210 according to the total number of cells or packets waiting in each terminal equipment unit 210 and a bandwidth (i.e., weighting coefficient) allocated to each terminal equipment unit 210, the allocation of resources by the bandwidth allocation unit is independent of the number of channels of each terminal equipment unit 210, and each terminal equipment unit 210 includes means for

Art Unit: 2645

allocating resources to each channel according to the overall resources allocated to it by the bandwidth allocation unit and a bandwidth (i.e., weighting coefficient) allocated to each channel of the terminal equipment unit 210 (abstract; fig.1-fig.4; col.1, lines 57-67, col.2, lines 1-14, 34-38, col.6, lines 44-67, col.7, lines 1-6, col.8, lines 17-19, 58-67, col.9, lines 1, 2, 20-60).

Regarding claims 2 and 10, Lyles teaches that the bandwidth (i.e., weighting coefficient) allocated to each connection in a terminal depends on the quality of service of the channel (i.e., connection) (fig.1-fig.4; col.1, lines 57-67, col.2, lines 1-14, 34-38, col.6, lines 44-67, col.7, lines 1-6, col.10, lines 24-29).

Regarding claim 3, Lyles teaches that the bandwidth (i.e., weighting coefficient) allocated to each terminal is the sum of weighting coefficients allocated to each connection of the terminal (fig.1-fig.4; col.1, lines 57-67, col.2, lines 1-14, 34-38, col.7, lines 13-25).

Regarding claim 4, Lyles teaches that the management unit includes means for allocating to each terminal a number of cells to be transmitted and the start and finishing (i.e., end) of transmission times for the terminal (col.9, lines 61-67, col.10, lines 1-7, 46-55, col.11, lines 27-67, col.12, lines 1-17).

Regarding claim 5, Lyles teaches that the bandwidth (i.e., weighting coefficient) allocated to each terminal determines the required time period between ordering packets (i.e., successive transmission times) for the terminal (col.9, lines 61-67, col.10, lines 1-7, 46-55, col.11, lines 27-67, col.12, lines 1-17).

Regarding claims 6 and 15, Lyles teaches that the bandwidth (i.e., weighting coefficient) allocated to each connection of a terminal determines the time period between the transmission

Art Unit: 2645

times of two successive cells of the connection (col.9, lines 61-67, col.10, lines 1-7, 46-55, col.11, lines 27-67, col.12, lines 1-17

Regarding claim 7, Lyles teaches a terminal equipment unit 210 (i.e., terminal) for a telecommunication system in which calls are effected by cells or packets, wherein the terminal equipment unit 210 includes a plurality of channels (i.e., connections), the allocation of resources is determined cell by cell or packet by packet, the terminal equipment unit 210 includes means for transmitting to a bandwidth allocation unit (i.e., management unit) responsible for allocating resources to a plurality of terminal equipment units 210 a request (i.e., signal) representing the total number of cells or packets awaiting transmission, means for periodically receiving from the bandwidth allocation unit a authorization signal 410 (i.e., signal) representing the communication resources allocated to the terminal equipment unit 210, and means for allocating the resources to each channel according to the overall resources that are allocated to it and a bandwidth (i.e., weighting coefficient) allocated to each channel of the terminal equipment unit 210 (abstract; fig.1-fig.4; col.1, lines 57-67, col.2, lines 1-14, 34-38, col.6, lines 44-67, col.7, lines 1-6, col.8, lines 17-19, 58-67, col.9, lines 1, 2, 20-67, col.10, lines 1-7, 46-55, col.11, lines 8-17).

Regarding claim 11, Lyles teaches transmitting two ordering (i.e., successive) cells of the same channel (i.e., connection) at times separated by a time period that depends on the weighting coefficient allocated to the channel (col.11, lines 27-67, col.12, lines 1-17).

Regarding claim 12, Lyles teaches that the time period between the transmission of two successive cells of the same connection inherently depends on the reciprocal of the bandwidth (i.e., weighting coefficient) allocated to the corresponding connection (col.11, lines 27-67, col.12, lines 1-17). Here, bandwidth is inversely proportional to the time period.

Art Unit: 2645

Regarding claim 13 is rejected for the same reasons as discussed above with respect to claims 1 and 7.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8, 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyles et al. (U.S. Patent No. 5,917,822) and in view of Ding et al. (U.S. Patent No. 5,699,361).

Regarding claims 8 and 14 are rejected for the same reasons as discussed above with respect to claim 4. Furthermore, Lyles fails to teach that the resource allocation signal that is received from the management unit represents a number of cells to be transmitted and the means for allocating resources to each connection select the connections that will be able to transmit a cell. Ding teaches the request (i.e., resource allocation signal) that is received from the streamer process 330 (i.e., management unit) represents a number of packets (i.e., cells) to be transmitted and the means for allocating resources to each channel (i.e., connection) select the channels that will be able to transmit a cell (col.18, line 66-col.19, line 18). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lyles to allow the resource allocation signal that is received from the management unit represents a number of cells to be transmitted and the means for allocating resources to each connection select the

Art Unit: 2645

connections that will be able to transmit a cell as taught by Ding. The motivation for the modification is to have the override condition in order to transfer the packets from the buffer.

Regarding claim 9 is rejected for the same reasons as discussed above with respect to claim 8. Furthermore, Lyles teach determining the transmission time of each cell (col.11, lines 27-67, col.12, lines 1-17).

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kari (U.S. Patent No. 6,597,682) teach Wireless asynchronous transfer mode (ATM) communication system.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alam Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (703) 305-4895. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

M. E.

MD SHAFIUL ALAM ELAHEE  
February 29, 2004

FAN TSANG  
SUPERVISOR, PATENT EXAMINER  
TECHNOLOGY CENTER 2600

